

* * * * * STN Columbus * *
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FILE 'HOME' ENTERED AT 13:00:18 ON 28 AUG 2001

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS
SINCE FILE TOTAL

ENTRY SESSION
FULL ESTIMATED COST
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INDEX 'ADISALERTS, ADISINSIGHT, AGRICOLA,
ANABSTR, AQUASCI, BIOBUSINESS,
BIOCOMMERCE, BIOSIS, BIOTECHABS,
BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,
CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI,
CROPB, CROPU, DDFB, DDFU, DGENE,
DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL,
...' ENTERED AT 13:00:26 ON 28 AUG 2001

59 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term
postings or to view
search error messages that display as 0* with
SET DETAIL OFF.

=> s (ph dependence) (5a) (ion exchange#)

1 FILE ANABSTR
4 FILE BIOSIS
1 FILE CABA
1 FILE CANCERLIT
19 FILE CAPLUS
14 FILES SEARCHED...
2 FILE CEABA-VTB
29 FILES SEARCHED...
1 FILE FROSTI
1 FILE JICST-EPLUS
1 FILE MEDLINE
1 FILE NTIS
2 FILE PASCAL
48 FILES SEARCHED...
4 FILE SCISEARCH
1 FILE TOXLIT

13 FILES HAVE ONE OR MORE ANSWERS, 59
FILES SEARCHED IN STNINDEX

L1 QUE (PH DEPENDENCE) (5A) (ION EXCHANGE#)

=> d rank

F1 19 CAPLUS
F2 4 BIOSIS
F3 4 SCISEARCH
F4 2 CEABA-VTB
F5 2 PASCAL
F6 1 ANABSTR
F7 1 CABA
F8 1 CANCERLIT
F9 1 FROSTI
F10 1 JICST-EPLUS
F11 1 MEDLINE
F12 1 NTIS
F13 1 TOXLIT

=> file hits
COST IN U.S. DOLLARS
SINCE FILE TOTAL

ENTRY SESSION
FULL ESTIMATED COST
3.15 3.30

FILE 'CAPLUS' ENTERED AT 13:04:31 ON 28 AUG
2001

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2001

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2001

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FILE 'ANABSTR' ENTERED AT 13:04:31 ON 28 AUG
2001

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FILE 'CABA' ENTERED AT 13:04:31 ON 28 AUG 2001
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2001

FILE 'FROSTI' ENTERED AT 13:04:31 ON 28 AUG
2001

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FILE 'JICST-EPLUS' ENTERED AT 13:04:31 ON 28
AUG 2001

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2001

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=> s l1

11 FILES SEARCHED...
L2 39 L1

=> dup rem l2

PROCESSING COMPLETED FOR L2

L3 29 DUP REM L2 (10 DUPLICATES
REMOVED)

ANSWERS '1-19' FROM FILE

CAPLUS

ANSWERS '20-23' FROM FILE

BIOSIS

ANSWERS '24-25' FROM FILE

CEABA-VTB

ANSWER '26' FROM FILE ANABSTR
ANSWER '27' FROM FILE FROSTI
ANSWER '28' FROM FILE JICST-

EPLUS

ANSWER '29' FROM FILE NTIS

=> d scan

L3 29 ANSWERS CEABA COPYRIGHT 2001

DECHEMA

TI Elimination of metal cations from
aqueous solutions by coordinative
bonding on polyacids and ultrafiltration
Metallioneneliminierung aus Waessern
durch koordinative Bindung an
Polysaeuren und Ultrafiltration
CT METAL; ULTRAFILTRATION; ION EXCHANGE;
METAL EXTRACTION; POLYMER
SEPARATION; WASTEWATER TREATMENT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN?

(1):28

L3 29 ANSWERS FROSTI COPYRIGHT 2001

LFRA

TI Physical restraining property of
gelatins - ***pH***
dependence of gelatins treated
with ***ion***
exchange resins.

CT DETERMINATION; FACTORS AFFECTING;
GELATIN; ION EXCHANGE RESINS; PH;
PHOTOGRAPHIC GELATIN; PHYSICAL;
REDUCTION; RESINS; SYSTEMS

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS

CC 53-1 (Mineralogical and Geological
Chemistry)

TI The albite-water system: Part III.
Characterization of leached and
hydrogen-enriched layers formed at
300.degree. C using MeV ion beam
techniques
ST albite water interface nearsurface chem
leaching; hydrothermal alteration
albite nearsurface chem characterization
IT Hydrothermal alteration
Leaching

(characterization by MeV ion beam
techniques of leached and
hydrogen-enriched layers formed at
300.degree. in albite near its
interface with water)

IT Feldspar group minerals

RL: GPR (Geological or astronomical
process); RCT (Reactant); PROC
(Process)

(characterization by MeV ion beam
techniques of leached and
hydrogen-enriched layers formed at
300.degree. in albite near its
interface with water)

IT 7732-18-5, Water, processes 12244-10-9,
Albite

RL: GPR (Geological or astronomical
process); RCT (Reactant); PROC
(Process)

(characterization by MeV ion beam
techniques of leached and
hydrogen-enriched layers formed at
300.degree. in albite near its
interface with water)

IT 17341-25-2, Sodium, ion (Na+), processes

RL: GPR (Geological or astronomical
process); PEP (Physical, engineering
or chemical process); PROC (Process)
(loss from near-surface part of albite
leached by water at 300.degree.)

IT 12385-13-6, processes

RL: GPR (Geological or astronomical
process); PEP (Physical, engineering
or chemical process); PROC (Process)
(permeation into near-surface part of
albite interacting with water at
300.degree.)

IT 7429-90-5, Aluminum, processes

RL: GPR (Geological or astronomical
process); PEP (Physical, engineering
or chemical process); PROC (Process)
(preferential leaching from near-
surface part of albite interacting
with water at 300.degree.)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS

CC 66-4 (Surface Chemistry and Colloids)
Section cross-reference(s): 63, 75, 78

TI Preparation and phosphate ion-exchange
properties of a hydrotalcite-like
compound

ST phosphate ion exchanger prepn
hydrotalcite compd; chloride intercalation
hydrotalcite phosphate anion exchanger;
hyperphosphatemia hemodialysis
oral phosphate binder hydrotalcite

IT Anion exchangers
(hydrotalcite-like compd. prepd. by
chloride intercalation as, for
phosphate)

IT Crystal structure
(of hydrotalcite-like compd., prepd.
by chloride intercalation)

IT Kidney, disease
(chronic, hyperphosphatemia in humans
on hemodialysis in,
hydrotalcite-like ion exchanger for
prevention of)

IT Dialysis
(hemo-, hyperphosphatemia in humans
in, hydrotalcite-like ion exchanger
for prevention of)

IT 14265-44-2, Phosphate, properties

RL: PRP (Properties)
(anion exchange of, on chloride-
intercalated hydrotalcite-like compd.)

IT 149320-54-7

RL: PRP (Properties)
(anion exchanger, for phosphate,
prepn. and properties of)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 61-2 (Water)
TI Metal ion removal from aquatic systems by
coordinative covalency to
polyacids and ultrafiltration
ST metal removal complexation
ultrafiltration water
IT Metals, uses and miscellaneous
RL: REM (Removal or disposal); PROC
(Process)
(removal of, from water, by
complexation and ultrafiltration)
IT Water purification
(complexation, metal removal by,
ultrafiltration in relation to)
IT Water purification
(ultrafiltration, metal removal by,
complexation in relation to)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 80-1 (Organic Analytical Chemistry)
Section cross-reference(s): 79
TI Potential response of liquid ion-exchange
membrane electrodes with a
weak-acid anion as primary ion, and its
dependence on pH
ST weak acid selective electrode pH
dependence; hydrogen sulfate interference
acid detn; math model pH dependence
membrane electrode; ***ion***
exchange membrane electrode
pH ***dependence*** ; liq
membrane electrode pH dependence
IT Acids, analysis
RL: ANT (Analyte); ANST (Analytical
study)
(dibasic, potentiometric detn. of,
potential response of liq.
ion-exchange membrane electrodes based
on weak-acid anion for, as
function of pH)
IT Electrodes
(ion-selective, based on liq. ion-
exchanger membrane contg. weak-acid
anion, response of)
IT 65-85-0, Benzoic acid, analysis 88-99-
3, Phthalic acid, analysis
RL: ANT (Analyte); ANST (Analytical
study)
(detn. of, by potentiometry, potential
response of liq. ion-exchange
membrane electrode in relation to pH
for)
IT 7664-93-9, Sulfuric acid, uses and
miscellaneous
RL: ANST (Analytical study); USES (Uses)
(interference by, in weak acid detn.
by potentiometry with liq.
ion-exchange membrane electrodes based
on weak-acid anions)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 53-1 (Mineralogical and Geological
Chemistry)
Section cross-reference(s): 67, 69
TI Thermodynamic and kinetic constraints on
reaction rates among minerals and

aqueous solutions. III. Activated
complexes and the pH-dependence of the
rates of feldspar, pyroxene,
wollastonite, and olivine hydrolysis
ST kinetics hydrolysis mineral surface
exchange; feldspar kinetics hydrolysis
surface exchange; pyroxene kinetics
hydrolysis surface exchange; olivine
kinetics hydrolysis surface exchange;
wollastonite kinetics hydrolysis
surface exchange
IT Feldspar-group minerals
Minerals
Olivine-group minerals
Pyroxene-group minerals
RL: RCT (Reactant)
(hydrolysis of, kinetics of, cation
exchange and adsorption in relation
to)
IT Kinetics of hydrolysis
(of minerals, cation exchange and
adsorption in relation to)
IT Adsorption
Cation exchange
(on mineral surfaces, kinetics of
hydrolysis in relation to)
IT 13983-17-0, Wollastonite
RL: RCT (Reactant)
(hydrolysis of, kinetics of, cation
exchange and adsorption in relation
to)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 79-2 (Inorganic Analytical Chemistry)
Section cross-reference(s): 72
TI The preparation of a selective
uranium(VI) electrode of the liquid ion
exchange type
ST uranium detn ion selective electrode;
polytetrafluoroethylene graphite
membrane electrode; benzoate uranyl ion
exchange electrode
IT Electric potential
(of liq. ***ion*** -
exchange -type uranium-selective
electrode, ***pH***
dependence of)
IT Ores and Ore deposits
RL: AMX (Analytical matrix); ANST
(Analytical study)
(uranium detn. in, ion-selective
electrode for)
IT Electrodes
(uranium-selective, membrane, liq.
ion-exchange-type)
IT 7440-61-1, analysis
RL: ANT (Analyte); ANST (Analytical
study)
(detn. of, in ores, ion-selective
electrode for)
IT 47638-54-0
RL: ANST (Analytical study)
(ion-exchange-type uranium-selective
electrode contg. org. soln. of)
IT 9002-84-0
RL: ANST (Analytical study)
(membrane from graphite and, in liq.
ion-exchange-type
uranium-selective electrode)
IT 7782-42-5, uses and miscellaneous
RL: USES (Uses)

(membrane from
poly(tetrafluoroethylene) and, in liq. ion-
exchange-type
uranium-selective electrode)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 66-4 (Surface Chemistry and Colloids)
TI Ion-exchange separation of cesium(1+)-
rubidium(1+) and
potassium(1+)-sodium(1+) systems on a
fixed bed of KU-1 ***ion***
exchanger based on ***pH***
dependence of its
selectivity and sorption power
ST alkali metal sepn chromatog KU 1;
sorption sepn alkali metal; cesium
rubidium sepn chromatog exchanger;
potassium sodium sepn chromatog
exchanger
IT Cation exchange
(alkali metal ion sepn. by pH-
controlled, on KU 1)
IT Cation exchangers
(sepn. of alkali metal binary mixt. by
pH-controlled sorption on)
IT Alkali metals, properties
RL: PRP (Properties)
(sepn. of binary mixt. of, by pH-
controlled sorption on cation
exchangers)
IT 11098-46-7
RL: PRP (Properties)
(sepn. of alkali metal binary mixt. by
pH-controlled sorption on)
IT 22537-38-8, properties
RL: PRP (Properties)
(sepn. of cesium ion from, by pH-
controlled sorption)
IT 17341-25-2, properties
RL: PRP (Properties)
(sepn. of potassium ion from, by pH-
controlled sorption)
IT 18459-37-5, properties
RL: PRP (Properties)
(sepn. of rubidium ion from, by pH-
controlled sorption)
IT 24203-36-9, properties
RL: PRP (Properties)
(sepn. of sodium ion from, by pH-
controlled sorption)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 66 (Surface Chemistry and Colloids)
TI Adsorption and coprecipitation of silver
on hydrous oxides of iron and
manganese
ST adsorption copptn silver; iron oxides
adsorption copptn silver; manganese
oxides adsorption copptn silver; hydrous
oxides adsorption copptn silver
IT Adsorption
(of silver, by transition metal
hydroxides)
IT Iron hydroxide
Manganese hydroxide
RL: PEP (Physical, engineering or
chemical process); PROC (Process)
(adsorption by, of silver)
IT 7440-22-4, properties
RL: PRP (Properties)

(adsorption and pptn. of, by
transition metal hydroxides)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 77 (Electrochemistry)
TI Potential-pH relations of gamma manganese
dioxide
ST MANGANESE DIOXIDE POTENTIALS; POTENTIALS
MN DIOXIDE; ELECTRODE POTENTIALS
MN DIOXIDE; ION EXCHANGE MN DIOXIDE
IT Electric potential
Ion exchange
(of manganese oxide (MnO2), pH effect
on)
IT 1313-13-9, properties
RL: PRP (Properties)
(elec. potential and ion exchange of,
pH effect on)

L3 29 ANSWERS BIOSIS COPYRIGHT 2001 BIOSIS
TI DNA POLYMERASES OF MURINE LBN-B LEUKEMIC
CELLS.
IT Miscellaneous Descriptors
VIRAL ORIGIN CARCINOGENESIS RNA
DIRECTED DNA POLYMERASE ALPHA DIRECTED
DNA POLYMERASE ALPHA DNA DIRECTED DNA
POLYMERASE BETA DNA DIRECTED DNA
POLYMERASE GAMMA N ETHYL MALEIMIDE
METAB-DRUG POLY ADENYLATEOLIGO DEOXY
THYMIDYLATE TEMPLATE ACTIVITY REVERSE
TRANSCRIPTASE

L3 29 ANSWERS BIOSIS COPYRIGHT 2001 BIOSIS
TI TITRATIONS OF ORGANIC SOILS WITH STANDARD
BASE SOLUBILITY OF IONIZABLE
FUNCTIONAL GROUPS AT 25 C.
IT Miscellaneous Descriptors
CARBOXYL ***ION***
EXCHANGE ***PH***
DEPENDENCE AUTOMATIC
TITRATOR MICROCOMPUTER

L3 29 ANSWERS CEABA COPYRIGHT 2001
DECHEMA
TI ***pH*** ***dependence*** of
ion - ***exchange***
equilibrium of proteins
pH-Abhaengigkeit des Gleichgewichts des
Ionenaustauschprozesses von
Proteinen
CT EQUILIBRIUM; MODEL; PH; PROTEIN;
ADSORPTION; EQUILIBRIUM MODEL; ION
EXCHANGE; REACTION MODEL

L3 29 ANSWERS JICST-Eplus COPYRIGHT 2001
JST
TI Phosphate Ion-Exchange Characteristics of
The Pyroaurite-like Compound.

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 9-3 (Biochemical Methods)
Section cross-reference(s): 6
TI ***pH*** ***dependence*** of
ion - ***exchange***
equilibrium of proteins
ST protein ion exchange chromatog pH ionic
strength model
IT Proteins (general), properties
RL: PEP (Physical, engineering or
chemical process); PRP (Properties);
PROC (Process)

(bovine serum albumin as model of;
 pH ***dependence*** of
 ion - ***exchange***
 equil. of proteins)
 IT Serum albumin
 RL: PEP (Physical, engineering or
 chemical process); PRP (Properties);
 PROC (Process)
 (model protein; ***pH***
 dependence of ***ion*** -
 exchange equil. of proteins)
 IT ***Ion*** ***exchange***
 Ion ***exchange***
 chromatography
 Ionic strength
 Physicochemical simulation
 Protein adsorption
 Protonation
 pH
 (***pH*** ***dependence*** of
 ion - ***exchange***
 equil. of proteins)
 IT Electric charge
 (protein; ***pH***
 dependence of ***ion*** -
 exchange equil. of proteins)
 IT 116874-53-4, Sepharose Q
 RL: PEP (Physical, engineering or
 chemical process); PROC (Process)
 (strong anion exchanger; ***pH***
 dependence of
 ion - ***exchange***
 equil. of proteins)

 L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
 CC 66-5 (Surface Chemistry and Colloids)
 TI Selective Binding of Divalent Cations at
 the Surface of Self-Assembled
 Monolayers of an Aromatic Bifunctional
 Molecule Studied on a Quartz
 Crystal Microbalance
 ST cation exchange cadmium lead
 carboxythiophenol monolayer
 IT Cation exchange
 (selective binding of divalent cations
 at surface of self-assembled
 monolayers of arom. bifunctional mol.)
 IT 14280-50-3, Lead 2+, processes 22537-
 48-0, Cadmium 2+, processes
 RL: PEP (Physical, engineering or
 chemical process); RCT (Reactant); PROC
 (Process)
 (selective binding of divalent cations
 at surface of self-assembled
 monolayers of arom. bifunctional mol.)
 IT 1074-36-8, 4-Carboxythiophenol
 RL: PEP (Physical, engineering or
 chemical process); RCT (Reactant); PROC
 (Process)
 (selective binding of divalent cations
 at surface of self-assembled
 monolayers of arom. bifunctional mol.
 of)
 IT 7440-57-5, Gold, processes
 RL: PEP (Physical, engineering or
 chemical process); RCT (Reactant); PROC
 (Process)
 (selective binding of divalent cations
 at surface of self-assembled
 monolayers of arom. bifunctional mol.
 on)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
 CC 2-5 (Mammalian Hormones)
 TI Intracellular- ***pH***
 dependence of sodium-hydrogen
 ion ***exchange*** and acid
 loading in quiescent and arginine
 vasopressin-activated mesangial cells
 ST vasopressin kidney mesangium pH; sodium
 hydrogen exchange mesangial AVP
 IT Biological transport
 (antiport, of hydrogen ion with
 sodium, in kidney mesangial cell,
 arginine vasopressin effect on
 intracellular pH in relation to)
 IT Kidney
 (mesangium, arginine vasopressin
 effect on intracellular pH in, acid
 loading and hydrogen-sodium exchange
 in relation to)
 IT 7440-23-5, Sodium, biological studies
 RL: BIOL (Biological study)
 (hydrogen ion exchange with, arginine
 vasopressin effect on mesangial
 cell intracellular pH in relation to)
 IT 113-79-1, Arginine vasopressin
 RL: BIOL (Biological study)
 (kidney mesangial cell intracellular
 pH response to, acid loading and
 hydrogen-sodium exchange in relation
 to)
 IT 12408-02-5, Hydrogen ion, biological
 studies
 RL: BIOL (Biological study)
 (sodium exchange with, arginine
 vasopressin effect on mesangial cell pH
 in relation to)

 L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
 CC 49-10 (Industrial Inorganic Chemicals)
 TI The use of low-rank brown coal as an ion-
 exchange material. 1. Basic
 parameters and the ion-exchange mechanism
 ST brown coal cation exchange capacity
 IT Cation exchangers
 (brown coal, of Victoria, Australia)
 IT Chlorides, properties
 Sulfates, properties
 RL: PRP (Properties)
 (exchange of, in brown coal)
 IT Coal, brown
 RL: PRP (Properties)
 (ion exchange capacity of, of
 Victoria, Australia)
 IT 7440-23-5, Sodium, properties
 RL: PRP (Properties)
 (exchange of, in brown coal)
 IT 7429-90-5, Aluminum, properties 7439-
 92-1, Lead, properties 7439-96-5,
 Manganese, properties 7439-97-6,
 Mercury, properties 7440-02-0,
 Nickel, properties 7440-43-9, Cadmium,
 properties 7440-48-4, Cobalt,
 properties 7440-50-8, Copper,
 properties 7440-66-6, Zinc, properties
 RL: PRP (Properties)
 (exchange of, with brown coal)

 L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
 CC 72-2 (Electrochemistry)
 Section cross-reference(s): 66, 78

TI Effects of the solution pH on the electrochemical behavior of tris(bipyridine)ruthenium and ferricyanide ions at a clay-modified electrode

ST ruthenium bipyridine redox clay electrode; hexacyanoferrate oxidn electrochem clay electrode; hexacyanoferrate redn electrochem clay electrode; adsorption bipyridine ruthenium clay electrode; sodium montmorillonite modified electrode

IT Electrodes (clay-modified)

IT Clays, uses and miscellaneous
RL: USES (Uses)
(electrodes modified with, cyclic voltammetry of hexacyanoferrate and ruthenium-bipyridine complex redox couples at)

IT Oxidation, electrochemical (of ruthenium-bipyridine complex and hexacyanoferrate ions at clay-modified and glassy carbon electrodes, pH in relation to)

IT Adsorption (of ruthenium-bipyridine complex by clay-modified electrodes, pH in relation to)

IT Redox reaction (electrochem., of ruthenium-bipyridine complex and hexacyanoferrate ions at clay-modified and glassy carbon electrodes, pH in relation to)

IT 13408-62-3, Hexacyanoferrate(3-) 13408-63-4, Hexacyanoferrate(4-)
15158-62-0 18955-01-6
RL: PRP (Properties)
(electrochem. properties of redox couple contg., at clay-modified and glassy carbon electrodes)

IT 7440-44-0, Carbon, uses and miscellaneous
RL: USES (Uses)
(electrodes from glassy, cyclic voltammetry of redox couples of hexacyanoferrate and of ruthenium-bipyridine complex at)

IT 1318-93-0, uses and miscellaneous
RL: USES (Uses)
(electrodes modified with, cyclic voltammetry of hexacyanoferrate and ruthenium-bipyridine complex redox couples at)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 9-3 (Biochemical Methods)

TI High-performance liquid chromatography of proteins on alumina

ST high performance liq chromatog protein; protein chromatog alumina

IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of, on alumina)

IT Chromatography, gel (of proteins, on alumina)

IT Chromatography, column and liquid (high-performance, of proteins, on alumina)

IT 1344-28-1, analysis
RL: ANST (Analytical study)

(proteins chromatog. on)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 54-2 (Extractive Metallurgy)

TI Equilibrium relationships in the extraction of metals from ammoniacal solution with low rank coals

ST metal extn ammoniacal coal; zinc extn ammoniacal coal; cadmium extn ammoniacal coal; cadmium extn ammoniacal coal; nickel extn ammoniacal coal; copper extn ammoniacal coal; coal extn metal ammoniacal; lignite extn metal ammoniacal

IT Metals, preparation
RL: PREP (Preparation)
(extn. of, from ammoniacal solns. by coal)

IT Coal
Coal, brown
RL: PROC (Process)
(in metal extn. from ammoniacal solns.)

IT Ion exchange (in metal extn. from ammoniacal solns. by coal)

IT 7440-02-0P, preparation 7440-43-9P, preparation 7440-50-8P, preparation
RL: PREP (Preparation)
(extn. of, from ammoniacal solns. by coal)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

TI Physical restraining property of gelatins - pH dependence of physical retardance of gelatins treated with ion exchange resins

ST gelatin emulsion ripening restraining

IT Ion exchangers (photog. gelatin treated by, effect on emulsion ripening)

IT Photographic emulsions (ripening of, pH dependence of phys. restraining property of gelatin in, treated with ion exchange resins)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 66 (Surface Chemistry and Colloids)

TI Theoretical and experimental study of an elution gradient for the partition chromatography of organic acids

ST chromatog org acid; elution gradient chromatog

IT Acids, analysis
Amino acids, analysis
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of, elution gradient in)

IT Chromatography (elution gradient in, equation for)

L3 29 ANSWERS CAPLUS COPYRIGHT 2001 ACS
CC 3A (Nuclear Phenomena)

TI Exchange adsorption of radioactive ions on paper

L3 29 ANSWERS BIOSIS COPYRIGHT 2001 BIOSIS

TI ENZYMATIC PROPERTIES OF FISH MUSCLE
ALDOLASE.

IT Miscellaneous Descriptors

PAGRUS-MAJOR SCOMBER-JAPONICUS
CYPRINUS-CARPIO THERMAL INACTIVATION
PH ***DEPENDENCE***

AMMONIUM SULFATE FRACTIONATION

ION - ***EXCHANGE***
CHROMATOGRAPHY

L3 29 ANSWERS BIOSIS COPYRIGHT 2001 BIOSIS

TI CUPRIC ION ADSORPTION ON HUMIC-ACID AND
FULVIC-ACID FROM LACUSTRINE
SEDIMENT.

IT Miscellaneous Descriptors

BROA RESERVOIR BRAZIL ***PH***
DEPENDENCE ***ION***
EXCHANGE HOMOGENOUS SURFACE

NOT ALL FILES IN THE CURRENT ENVIRONMENT ALLOW
THE USE OF SCAN
ALL ELIGIBLE ANSWERS HAVE BEEN SCANNED

=> s l3 and (protein# or enzyme?)

5 FILES SEARCHED...

11 FILES SEARCHED...

L4 5 L3 AND (PROTEIN# OR ENZYME?)

=> d bib ab 1-5

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1999:116019 CAPLUS

DN 130:278757

TI ***PH*** ***dependence*** of
ion - ***exchange***

equilibrium of ***proteins***

AU Bosma, J. C.; Wesselingh, J. A.

CS Chemical Engineering Dept., University of
Groningen, Groningen, 9747 AG,
Neth.

SO AIChE J. (1998), 44(11), 2399-2409

CODEN: AICEAC; ISSN: 0001-1541

PB American Institute of Chemical Engineers

DT Journal

LA English

AB The adsorption equil. of bovine serum
albumin on Q-sepharose, a strong
anion exchanger, was studied with batch
equil. expts. at pH between 4 and
9 and ionic strengths between 5 and 440
mmol/L. Dependence of the
adsorption equil. on the ionic strength
was modeled as an ion exchange
reaction. A simplified mechanism of this
ion exchange reaction also
yielded an expression for the dependence
of the equil. on the charge of
the ***protein***. This model
describes the measurements well, using
fitted consts. with phys. realistic
values.

RE.CNT 31

RE

(1) Bellot, J; Proc Biochem 1993, V28, P365
CAPLUS

(2) Brooks, C; AIChE J 1992, V38, P1969 CAPLUS

(3) Fausnaugh-Pollitt, J; J Chromatog 1988,
V443, P221 CAPLUS

(7) Hill, T; J Phys Chem 1956, V60, P253
CAPLUS

(8) Hu, S; J Chromatog 1992, V605, P175 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1984:170947 CAPLUS

DN 100:170947

TI High-performance liquid chromatography of
proteins on alumina

AU Laurent, C. J. C. M.; Billiet, H. A. H.;

De Galan, L.; Buytenhuys, F. A.;

Van der Maeden, F. P. B.

CS Lab. Anal. Scheikd., Tech. Hogesch.

Delft, Delft, 2600 GA, Neth.

SO J. Chromatogr. (1984), 287(1), 45-54

CODEN: JOCRAM; ISSN: 0021-9673

DT Journal

LA English

AB ***Proteins*** were sepd. on alumina
with an aq. mobile phase by

ion-exchange and size-exclusion

chromatog. and by a combination of both

techniques. The ***PH***

dependence of the ***ion*** -

exchange retention mechanism is

explained on the basis of 2

similar concepts: the isoelec. point of

the ***protein*** and the zero

point of charge of the alumina surface.

The possibility of influencing

the surface properties of alumina by the

choice of the buffer anion lends

great flexibility to the system.

However, the size exclusion selectivity

is limited owing to the small choice of

presently available aluminas.

Examples are given that demonstrate the

advantages of alumina for the

sepn. of strongly basic ***proteins***

at high pH.

L4 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2001
BIOSIS

AN 1989:243764 BIOSIS

DN BA87:124829

TI ENZYMATIC PROPERTIES OF FISH MUSCLE
ALDOLASE.

AU NAKAGAWA T; NAGAYAMA F

CS DEP. FOOD SCI. AND TECHNOL., FAC.

FISHERIES, TOKYO UNIV. FISHERIES,

MINATO-KU, TOKYO 108, JPN.

SO COMP BIOCHEM PHYSIOL B COMP BIOCHEM,

(1989) 92 (2), 405-410.

CODEN: CBPBB8. ISSN: 0305-0491.

FS BA; OLD

LA English

AB 1. Aldolases were isolated from the
ordinary muscle of red sea bream

Pagrus major Pacific mackerel Scomber

japonicus, and carp Cyprinus carpio

by ammonium sulfate fractionation,

followed by ion-exchange chromatography

on DEAE-cellulose and CM-Sepharose CL-6B

columns, and examined for

enzymatic properties. 2. The aldolases

showed the highest activity in a pH

range from 6.8-7.8 Km values for

fructose-1,6-bis-phosphate ranged from

0.025-0.10 mM. 3. Irrespective of fish

species, aldolase activity was

inhibited by ATP, ADP, and AMP. ATP

showed the strongest inhibition and

was competitive with fructose-1,6-bisphosphate. 4. The aldolases did not require divalent metal ions for activation and were completely inhibited at 0.1 mM Cu²⁺. 5. Thermal inactivation of the ***enzymes*** was of the first-order reaction. Red sea bream, Pacific mackerel and carp ***enzymes*** lost the activity by 50% when incubated at 50.degree. C for 8, 14 and 23 min, respectively.

L4 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2001
 BIOSIS
 AN 1976:214222 BIOSIS
 DN BA62:44222
 TI DNA POLYMERASES OF MURINE LBN-B LEUKEMIC CELLS.
 AU SIEDLECKI J A; MIKKE R; ZMUDZKA B
 SO ACTA BIOCHIM POL, (1976) 23 (1), 69-84.
 CODEN: ABPLAF. ISSN: 0001-527X.
 FS BA; OLD
 LA Unavailable
 AB In the postmitochondrial fraction of murine LBN/b leukemic cells, 4 fractions with DNA polymerase activity (I, II, III, IV) were found. On the basis of ion exchanger affinity and poly(A), poly(C) and poly(Cm) replication ability, fraction I was classified as RNA-directed DNA polymerase of viral origin. On the basis of the differences in ***ion*** ***exchanger*** affinity, MW, template requirement ***pH*** - ***dependence*** of enzymatic activity and NaCl concentration, divalent ion requirements and susceptibility to N-ethylmaleimide inhibition, fractions II, III and IV were classified as DNA-directed DNA polymerases .beta., .alpha. and .gamma., respectively. Three fractions, i.e., reverse transcriptase, and DNA-directed DNA polymerases .beta. and .gamma., incorporated dTMP on a poly(A) .cntdot. oligo(dT) template-primer. Despite the similarity of the reaction of DNA polymerases .beta. and .gamma. with poly(A) .cntdot. oligo(dT), some other properties of these ***enzymes*** suggest that they represent distinct enzymatic entities.

L4 ANSWER 5 OF 5 CEABA-VTB COPYRIGHT 2001 DECHEMA
 AN 1999(00):0122 CEABA-VTB FS V
 DN VTB: 1999(10):101
 TI ***pH*** ***dependence*** of ***ion*** - ***exchange*** equilibrium of ***proteins*** pH-Abhaengigkeit des Gleichgewichts des Ionenaustauschprozesses von Proteinen
 AU Bosma, J.C.; Wesselingh, J.A. (Univ. Groningen, 9747 AG Groningen, Netherlands)
 SO Univ. of Groningen (NL)
 SO AICHe J. (1998) 44(11), 2399/2409, 12
 Abb, 4 Tab, 31 Qu
 CODEN: AICEAC ISSN: 0001-1541

DT Journal
 LA English
 AB The adsorption equilibrium of bovine serum albumin on Q-sepharose a strong anion exchanger was studied with batch equilibrium experiments at pH from 4 to 9 and ionic strengths from 5 to 440 mmol/L. Dependence of the adsorption equilibrium on the ionic strength was modelled as an ion exchange reaction. A simplified mechanism of this ion exchange reaction also yielded an expression for the dependence of the equilibrium on the charge of the ***protein***. This model describes the measurements well using fitted constants with physically realistic values.

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